a second detection unit that generates a signal based on a motion when the operation unit is moved in a direction different from the inclination direction; and

a control unit that selects character data from among N data groups based on detected output from the first detection unit when the operation unit is inclined and that finalizes data selected based on detected output from the second detection unit when the operation unit is operated in the direction different from the inclination direction.

REMARKS

Summary

Claims 1-7 are pending. Claim 1 has been rewritten. No new subject matter was added as a result of this amendment.

Rejection of Claims

In the Office Action, Claims 1, 3, and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda (U.S. Patent 6,362,810) in view of Marcus (U.S. Patent 6,482,010), Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda and Marcus in view of Kandogan (U.S. Patent 6,184,867), Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda and Marcus in view of Tomoda (U.S. Patent 6,377,243), Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda, Marcus, and Tomoda in view of Saito (U.S. Patent 4,777,600), and Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Matsuda, Marcus, and Tomoda in view of Okumura (U.S. Patent 5,966,719). Applicants traverse the rejections. Nevertheless, Applicants have amended Claim 1 and submit that amended Claim 1 and Claims 2-7 overcome the rejections.

Amended Claim 1 recites a character input apparatus. This character input apparatus comprises an inclinable operation unit, a support that supports the operation unit, first and second detection units, and a control unit. The first detection unit generates a signal corresponding to an inclination direction of the operation unit while the second detection unit generates a signal based on the motion of the operation unit when the operation unit is moved in a direction different from the inclination direction. The control unit selects character data from among N data groups based on the output detected from the first detection unit when the operation unit is inclined and finalizes the selected data based on the output detected from the second detection unit when the operation unit is operated in the direction different from the inclination direction. Such an arrangement permits an operator to quickly and easily enter character data without having to provide a

large amount of space, remember a particular key arrangement, or operate keys many times such as needed for a keyboard, or repeatedly move a cursor to a desired character, such as for a game machine.

Neither Matsuda nor Marcus anticipate or suggest such an arrangement. Matsuda specifically teaches a conventional joystick that more efficiently permits three dimensional operations to be performed to an object displayed on a screen. Matsuda teaches inclining the joystick as well as incorporating pushing the joystick up or down to execute these three dimensional operations rather than using the combination of joystick and separate button. The Examiner agrees that Matsuda does not teach any type of control unit.

Marcus, on the other hand, teaches a control unit that provides force feedback to a joystick during operation of a game to simulate different terrains. Marcus teaches that the control unit is required to operate the force feedback system so that the joystick is suitable to simulate different environments used for games in arcade and home use.

Marcus, however, does not anticipate or suggest a control unit that selects character data. In fact, neither Matsuda nor Marcus anticipate or suggest selecting character data by any means. Nor do Matsuda or Marcus anticipate or suggest limiting the character data selected to that from among N data groups. Additionally, neither Matsuda nor Marcus anticipate or suggest specifically that character data is selected and finalized based on outputs detected from the first and second detection units, respectively.

Furthermore, no motivation exists to combine the prior art of Matsuda and Marcus. To establish a prima facae case of obviousness, the prior art must in general teach all of the elements present in Claim 1 as well as provide some suggestion or motivation for combining the prior art (and there must be a reasonable expectation of success). See generally MPEP 2142. Matsuda is directed towards incorporation of the mechanism that permits vertical motion with the mechanism that permits inclination of the joystick without unduly increasing the complexity of the joystick. Matsuda does not motivate or suggest the need for a control unit. In fact, Matsuda teaches the overall desire for a less complicated joystick mechanism and thus teaches away from adding a control unit in the joystick or the mechanisms necessary to apply force feedback to the joystick present in the joystick taught by Marcus. Thus, not only does the combination of Matsuda and Marcus not teach all of the elements present in Claim 1, but in addition no suggestion or motivation exists for combining the vertically-moving joystick mechanism of Matsuda with the control unit and force feedback unit of Marcus

B

For at least these reasons, neither Matsuda nor Marcus, alone or in combination, anticipate or suggest the arrangement of amended Claim 1. Thus, amended Claim 1 and Claims 2-7 are patentable over the cited prior art.

Moreover, dependent Claims 2-7 are independently patentable over the cited prior art.

Regarding Claims 3 and 6: Claim 3 recites that the control unit selects the data successively based on the output change of the first detection unit when the inclination direction of the operation unit is changed while the inclination of the operation unit that is inclined in a desired direction is being maintained. The Examiner agreed that Matsuda does not anticipate or suggest a control unit. Further, the passage in Matsuda to which the Examiner has directed Applicants attention states only that by inclining one of two shafts and holding down the other shaft, a tilt and slide direction are produced. This passage does not anticipate or suggest 1) a control unit that functions in any manner, let alone, 2) a control unit that selects the data successively or 3) that this successive selection is based on the output change of the first detection unit when the inclination direction is changed while the amount of inclination is maintained. Similarly, Claim 6 recites that the control unit selects the data and the selected data is displayed on a display unit, the control unit generates the display data so that not only the data selected based on the inclination direction of the operation unit but also one data positioned adjacent to the selected data is displayed simultaneously on the display unit. As before, Matsuda does not teach a control unit, a control unit that selects the character data, or one that generates displayed data so that both the selected character data and data positioned adjacent to the selected data is displayed simultaneously.

Regarding Claim 2: Claim 2 recites that the support is provided with two rotational shafts that are rotated when the operation unit is inclined and two rotation detection means for detecting a rotation magnitude of each rotation shaft, the two rotation detection means constitute the first detection unit, and the detected output is obtained from the second detection unit when the operation unit is moved in a direction perpendicular to the rotational shafts. The Examiner states that Kandogan provides such an arrangement. However, Claim 2 recites that the support has both two rotational shafts and two rotation detection means. This is entirely different from Kandogan, who provides two different operation units, each with one shaft and one detection means. In fact, Kandogan teaches that both operation detection means are necessary to achieve adequate navigation in three dimensions. Nor does Kandogan teach specifically the manner of detection recited in Claim 2, i.e. that the second detection unit detects output when the operation unit is

B

moved in a direction perpendicular to the rotational shafts while the first detection unit, which contains the two rotation detection means, detects the rotation magnitude of each rotation shaft.

Regarding Claim 4: Claim 4 recites that the N data groups include 26 alphabetical characters A, B, C, ..., Z. The Examiner states that Tomoda teaches a data input device and a method for inputting data by operation a keyboard display having N data groups that include 26 alphabetical characters on a screen using a pointing device. However, Tomoda only teaches using a mouse to move a cursor on the screen and operate a keyboard displayed on the screen. Tomoda does not teach selection and finalization of character data based on both inclination and movement in a different direction from the inclination direction of the operation unit, or that the selection and finalization is detected by two separate detectors. Additionally, no motivation exists to combine the prior art of Matsuda with that of Marcus or Tomoda. As above, no motivation exists to combine the prior art of Matsuda with that of Marcus. Moreover, while Matsuda and Marcus teach very different inventions involving a joystick and a control unit (which actually teach away from each other), Tomoda teaches manipulation of a keyboard display by a mouse. No suggestion or motivation exists to combine the joystick and control unit of Matsuda and Marcus for three dimensional manipulation and force feedback during simulation, respectively, with the two dimensional selection of characters on a keyboard display using a mouse as taught by Tomoda.

Similarly, Claim 5 recites that a conversion means for converting input data of alphabetical (Latin) characters to kana characters is provided. While Saito teaches a method of converting input alphabetical character to kana characters, no suggestion or motivation exists to combine the joystick and control unit of Matsuda and Marcus for three dimensional manipulation and force feedback during simulation, respectively, with the translation method of Saito.

Similarly, Claim 7 recites that a second conversion means for converting for converting the kana characters to kanji characters is provided. Kana and kanji are separate alphabets and are distinct from the Latin alphabet. Okumura teaches a method of inserting capitalized Latin characters in a kana document. All of the passages that the Examiner has pointed out merely describe insertion of Latin characters into a kana document. Okumura does not teach, and in fact has nothing to do with, a converting means that converts kana characters to kanji characters. Nor, as above, does any suggestion or motivation exist to combine the joystick and control unit of Matsuda and

B

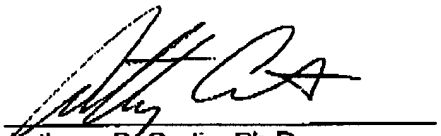
Marcus for three dimensional manipulation and force feedback during simulation, respectively, with the translation method of Saito or the capitalization method of Okumura.

For at least these reasons, none of the prior art cited, alone or in combination, anticipate or suggest the arrangement of Claims 2-7. Thus, Claims 2-7 are independently patentable over the cited prior art.

Conclusion

In view of the amendments and arguments above, Applicants respectfully submit that all of the pending claims are in condition for allowance and seek an early allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned.

Respectfully submitted,



Anthony P. Curtis, Ph.D.
Registration No. 46,193
Agent for Applicants

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

APPENDIX A
Character Input Apparatus
Serial No. 09/819,273
Yasuji Hagiwara et al.

In the Specification

Please amend the paragraph on page 1, lines 9-11 as follows:

The character input apparatus has been used for various electronic apparatuses such as personal computers, ~~potable~~portable phones, and game machines.

Please amend the paragraph beginning on page 1, line 23 and ending on page 2, line 10 as follows:

(Amended) The portable phone is used as a means for communication with other persons, and communication is carried not only by means of voice but also by means of character. In the case of communication by means of character, characters are entered by operating desired keys of a ~~potable~~portable phone. For example, "A, B, and C", "D, E, and F", ... "W, X, Y and Z" are assigned to number 2, number 3, ..., number 9 numeral keys respectively. In the case that "E" is to be entered, the number 3 numeral key is pushed twice, and in the case that "Z" is to be entered, the number 9 numeral key is pushed four times.

Please amend the paragraph on page 3, lines 1-15 as follows:

In detail, in the case of character input by use of the key board apparatus, it is required to secure a space for placing the key board such as a desk, and the key board cannot be used without space. Furthermore, it is difficult to enter the character quickly for a person who does not remember the key arrangement, thus the key board can be used by not every-one. Furthermore, in the case of character input by use of the ~~potable~~portable phone, it is difficult to enter the character quickly because the key operation is required many times. Furthermore, in the case of the controller for game machines, it takes a long time to move a cursor to a desired character because the cursor is moved by operating a plurality of keys, and also it is difficult to enter the character quickly.

Please amend the paragraph on page 8, lines 2-8 as follows:

B

The character input apparatus 2 shown in FIG. 1 is contained in a box 1 having a small size that is ~~potable~~portable and fits in hand. The box 1 is provided with operation switches 4, 5, and 6 that are used for game operation. Respective different key operations are assigned to these operation switches 4, 5, and 6 for each application ~~for using~~used.

Please amend the paragraph on page 17, lines 20-23 as follows:

The above-mentioned character input apparatus may be used not only for the game pad but also for ~~potable~~a portable phone, personal computer, car navigation system, audio system, and digital camera.

In the Claims

Please amend Claim 1 as follows:

(Twice Amended) 1. A character input apparatus comprising:~~,~~

an operation unit~~,~~;

a support ~~for supporting~~ that supports the operation unit so as to be inclinable~~,~~;

a first detection unit ~~for generating~~ that generates a different signal corresponding to an inclination direction of the operation unit~~,~~;

a second detection unit ~~for generating~~ that generates a signal based on a motion when the operation unit is moved in a direction different from the inclination direction~~,~~; and

a control unit ~~for selecting any~~ that selects character data from among N data groups based on detected output from the first detection unit when the operation unit is inclined and ~~for finalizing~~ that finalizes data selected based on detected output from the second detection unit when the operation unit is operated in the direction different from the inclination direction.

Case No. 9281/3969 (JUS00001)
Applicant HAGIWARA et al.

Director of The United States Patent & Trademark Office
Washington, D.C. 20231

Serial No. 09/819,273 Case No. 9281-3969
Applicant: Yasuji Hagiwara et al.
Commissioner for Patents
Washington, D.C. 20231

Please acknowledge receipt of the below-identified: Transmittal Cover Letter (1p. Filed in Dup.); Amendment (9pp. including Appendix A) and PTO Reply Postcard

BRINKS HOFER GILSON & LIONE Anthony P. Curtis, Ph.D., Reg. No. 46,193

Dated: March 26, 2003

[redacted]

Applicant: Yasuji Hagiwara et al.

Serial No. 09/819,273 Client Matter No. 9281-3969

Items Mailed: Transmittal Cover Letter (1p. Filed in Dup.); Amendment (9pp. including Appendix A) and PTO Reply Postcard

Date Due: March 27, 2003

Date of Mailing March 26, 2003

APC